

IN THE CLAIMS

Please amend the claims as shown in the following detailed claim listing. The detailed claim listing is intended to reflect withdrawal of claims 17-20, addition of claim 47 and amendment of claims 1, 2, 12, 13, 21, 38 and 40. The specific amendments to individual claims are detailed in the following detailed claim listing.

1. (Currently Amended) An isolated nucleic acid that comprises ~~SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6,~~ SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.
2. (Currently Amended) An isolated nucleic acid that comprises ~~SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6,~~ SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18, and that can selectively hybridize to DNA from a bacteria of the family *Enterobacteriaceae*.
3. (Original) An isolated nucleic acid that comprises SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10 and that can selectively hybridize to DNA from *Escherichia coli*.
4. (Original) The isolated nucleic acid of claim 3 wherein the nucleic acid selectively hybridizes to DNA from *Escherichia coli* in the presence of DNA from at least one other bacterial species of the family *Enterobacteriaceae*.
5. (Original) The isolated nucleic acid of claim 3 wherein the nucleic acid selectively hybridizes to DNA from *Escherichia coli* in the presence of DNA from *Klebsiella*, *Salmonella*, *Shigella* or *Yersinia*.

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6. (Original) An isolated nucleic acid that comprises SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, or SEQ ID NO:14 and that can selectively hybridize to DNA from *Salmonella typhimurium*.
 7. (Original) The isolated nucleic acid of claim 6 wherein the nucleic acid selectively hybridizes to DNA from *Salmonella typhimurium* in the presence of DNA from at least one other bacterial species of the family *Enterobacteriaceae*.
 8. (Original) The isolated nucleic acid of claim 3 wherein the nucleic acid selectively hybridizes to DNA from *Salmonella typhimurium* in the presence of DNA from *Klebsiella* or *Escherichia*.
 9. (Original) An isolated nucleic acid that comprises SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18 and that can selectively hybridize to DNA from *Klebsiella oxytoca*.
 10. (Original) The isolated nucleic acid of claim 9 wherein the nucleic acid selectively hybridizes to DNA from *Klebsiella oxytoca* in the presence of DNA from at least one other bacterial species of the family *Enterobacteriaceae*.
 11. (Original) The isolated nucleic acid of claim 9 wherein the nucleic acid selectively hybridizes to DNA from *Klebsiella oxytoca* in the presence of DNA from *Salmonella* or *Escherichia*.
 12. (Currently Amended) A biosensor chip that comprises a nucleic acid comprising ~~SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.~~

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13. (Original) A method of detecting the presence of enteric bacteria in a test sample that comprises contacting the test sample with a probe under stringent hybridizations conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises ~~SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6,~~ SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.
14. (Original) The method of claim 13 wherein the enteric bacteria are of the family *Enterobacteriaceae*.
15. (Original) The method of claim 13 that further comprises DNA amplification.
16. (Original) The method of claim 15 wherein the DNA amplification is by polymerase chain reaction.
- ~~17. (Canceled) A method of detecting the presence of any species of enteric bacteria in a test sample that comprises contacting the test sample with a probe under stringent hybridizations conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, or SEQ ID NO:6.~~
- ~~18. (Canceled) The method of claim 17 wherein the enteric bacteria are of the family *Enterobacteriaceae*.~~
- ~~19. (Canceled) The method of claim 17 that further comprises DNA amplification.~~
- ~~20. (Canceled) The method of claim 19 wherein the DNA amplification is by polymerase chain reaction.~~

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21. (Currently Amended) A method of detecting the presence of *Escherichia* in a test sample that comprises contacting the test sample with a probe under stringent hybridization~~hybridizations~~ conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises isolated nucleic acid that comprises SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10.
22. (Original) The method of claim 21 wherein the probe selectively hybridizes to DNA from *Escherichia coli* in the presence of DNA from *Klebsiella*, *Salmonella*, *Shigella* or *Yersinia*.
23. (Original) The method of claim 21 that further comprises DNA amplification.
24. (Original) The method of claim 23 wherein the DNA amplification is by polymerase chain reaction.
25. (Original) A method of detecting the presence of *Salmonella* in a test sample that comprises contacting the test sample with a probe under stringent hybridizations conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises isolated nucleic acid that comprises SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, or SEQ ID NO:14.
26. (Original) The method of claim 25 wherein the probe selectively hybridizes to DNA from *Salmonella typhymurium*. in the presence of DNA from *Klebsiella* or *Escherichia*.
27. (Original) The method of claim 25 that further comprises DNA amplification.
28. (Original) The method of claim 27 wherein the DNA amplification is by polymerase chain reaction.

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29. (Original) A method of detecting the presence of *Klebsiella* in a test sample that comprises contacting the test sample with a probe under stringent hybridizations conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises isolated nucleic acid that comprises SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.
30. (Original) The method of claim 29 wherein the probe selectively hybridizes to DNA from *Klebsiella oxytoca* in the presence of DNA from *Salmonella* or *Escherichia*.
31. (Original) The method of claim 29 that further comprises DNA amplification.
32. (Original) The method of claim 31 wherein the DNA amplification is by polymerase chain reaction.
33. (Original) A method for detecting enteric bacteria in a test sample that comprises contacting a test sample with a biosensor chip that comprises a solid support and an antibody that can bind to dGTPase from *Enterobacteriaceae*; and detecting whether dGTPase is bound to the biosensor chip; wherein the antibody is directed against a peptide having SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, or SEQ ID NO:36.
34. (Original) An isolated antibody that can selectively bind to dGTPase from *Enterobacteriaceae* wherein the antibody is directed against a polypeptide having SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, or SEQ ID NO:36.

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35. (Original) A method for detecting *Enterobacteriaceae* in a test sample that comprises contacting the isolated antibody of claim 34 with the test sample for a time and under conditions sufficient for the antibody to bind to a dGTPase polypeptide so as to form a binary complex between at least a portion of the antibody and a portion of the dGTPase polypeptide and detecting the binary complex.
36. (Original) A method of isolating a dGTPase polypeptide from *Enterobacteriaceae* comprising contacting a sample that may contain a dGTPase from *Enterobacteriaceae* with the antibody of claim 34 that is attached to a solid support, washing the solid support and eluting a dGTPase polypeptide from *Enterobacteriaceae*.
37. (Original) A biosensor chip that comprises a solid support and an antibody that can selectively bind to dGTPase from *Enterobacteriaceae*.
38. (Currently Amended) The biosensor chip of claim ~~37~~³⁶ wherein the antibody is directed against a polypeptide having SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, or SEQ ID NO:36.
39. (Original) A biosensor chip that comprises a solid support and a nucleic acid probe that can selectively hybridize to nucleic acid encoding a dGTPase from *Enterobacteriaceae*.
40. (Currently Amended) The biosensor chip of claim ~~39~~³⁸ wherein the probe is a nucleic acid comprising ~~SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6,~~ SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID

NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.

41. (New) A method for detecting enteric bacteria in a test sample that comprises contacting a test sample with a biosensor chip that comprises a solid support and an antibody that can bind to dGTPase from *Enterobacteriaceae*; and detecting whether dGTPase is bound to the biosensor chip; wherein the antibody is directed against a peptide having SEQ ID NO:19.